

1. Listing of the claims:

1. (previously presented) Computer graphics processor having a renderer for rendering in parallel a plurality of views of 3D images, said renderer comprising:

a rasterizer configured to traverse a surface grid over a surface of a primitive of a 3D image for all of the plurality of different views of said 3D image such that traversing is performed once for said 3D image,

a shader unit configured to determine a color of the output of the rasterizer and forward a shaded color sample along with its screen coordinates, and

a plurality of screen space resamplers, each of said screen space resamplers being configured to resample the shaded color sample determined by said shader unit according to one of the plurality of different views such that resampling is performed a plurality of times in parallel for said 3D image.

2. (previously presented) Computer graphics processor according to claim 1, further comprising:

a texture memory for storing texture maps,

wherein said surface grid is derived from a texture map being associated with said primitive and being stored in said texture memory.

3. (previously presented) Computer graphics processor according to claim 2, wherein a grid associated to one of the texture maps stored in the texture memory is chosen as said surface grid, if three requirements are fulfilled, said three requirements including:

said texture map is addressed independently,

said texture map is based on a 2D texture, and

the texture coordinates at the vertices do not make up a degenerate primitive.

4. (previously presented) Computer graphics processor according to claim 3, wherein the texture map with the largest area in texture space is chosen, if more than one texture maps stored in said texture memory fulfill said three requirements.

5. (previously presented) Computer graphics processor according to claim 1 or 2, further comprising:

a means for addressing a display screen,  
said renderer having an input for a 3D model and an input for at  
least one viewpoint for rendering image information for supplying to the addressing  
means,

wherein the renderer further comprises an initial part having an input for the 3-D model  
and for at least one main view point for rendering objects in the form of at least one main view  
point Z-stack having stack layers with color information and Z-values,

the renderer further comprising a Z-stack constructor in which, from the at least one main  
view point Z-stack generated by the initial stage, Z-stacks for additional viewpoints are  
constructed, and a further image information occlusion semantics stage for generating image  
information from the z-stacks.

6. (previously presented) Computer graphics processor according to claim 5, wherein said  
renderer further comprises an object extractor for extraction of objects from a view point zstack.

7. (previously presented) Computer graphics processor according to claim 6, wherein the  
object extractor is arranged for extracting objects from the at least one main view point z-stack.

8. (previously presented) Computer graphics processor according to claim 5, wherein the  
renderer comprises a DOF rendering stage wherein the DOF rendering stage is arranged for DOF  
processing of the at least one main view point z-stack into at least one main view point zstack  
comprising DOF blurring.

9. (previously presented) Method of rendering a plurality of different views of 3D  
images, comprising the steps of:

traversing a surface grid over a surface of a primitive of a 3D image for all the different  
plurality of views of said 3D image such that the traversing is performed once for said 3D image,

determining a color of the output of the traversing and forwarding a shaded color sample  
along with its screen coordinates, and

resampling the shaded color sample for each of the N different views such that the resampling is performed a plurality of times in parallel for said 3D image.

10. (previously presented) The method of rendering a plurality of views of 3D images according to claim 9, further comprising the steps of:

storing texture maps in a texture memory wherein said surface grid is derived from a texture map being associated with said primitive and being stored in said texture memory.

11. (previously presented) The method of rendering a plurality of views of 3D images according to claim 10, wherein a grid associated to one of the texture maps stored in the texture memory is chosen as surface grid, if three requirements are fulfilled, said three requirements including:

said texture map is addressed independently,

said texture map is based on a 2D texture, and

the texture coordinates at the vertices do not make up a degenerate primitive.

12. (previously presented) The method of rendering a plurality of views of 3D images according to claim 11, wherein the texture map with the largest area in texture space is chosen, if more than one texture maps stored in said texture memory fulfill said three requirements.

13. (previously presented) The method of rendering a plurality of views of 3D images according to claim 11, further comprising the steps of:

supplying data and addressing means of a 3D display device wherein for a main view point objects in the form of at least one main view point Z-stack comprising stack layers are rendered with RGB and Z-values, and

constructing from the at least one main view point Z-stack z-stacks for additional viewpoints, and

generating from the Z-stacks for additional viewpoints by means of Z-tracing data to be supplied to the addressing means.

14. Cancelled.